

Notice of Allowability	Application No.	Applicant(s)	
	09/863,065	KOJIMA ET AL.	
	Examiner	Art Unit	
	Yubin Hung	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to RCE filed 13 January 2005.
2. ☒ The allowed claim(s) is/are 1,2,5,6,9-17,20,21 and 24-31.
3. ☒ The drawings filed on 07 February 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 13, 2005 has been entered.

2. Claims 3-4, 7-8, 18-19 and 22-23 have been cancelled.

Allowable Subject Matter

3. Claims 1, 2, 5, 6, 9-17, 20, 21 and 24-31 are allowed.

4. The following is an examiner's statement of reasons for allowance:

5. Regarding claim 1, and similarly claims 16 and 31, prior art of record fails to teach or suggest, alone or in combination, an image processing method that extracts representative colors for a region from sections segmented by comparing the target component value of each pixel with the average of the target component values of all

Art Unit: 2625

pixels in that region; the target component has been selected basing on the magnitudes of the variances of the color components.

Closest art of Takakura et al. (US. PUB. NO. US2001/0028737 A1) discloses a method that binarizes an image by first selecting a color component using a statistic (a hierarchical relationship derived from a histogram) and then binarizes the selected component image by thresholding. [See Fig. 29; P. 10, paragraph 0173.] The binarized image clearly defines a mask that segments the original image into two sections (with one labeled as "0" and the other, "1", for example). Makita (US 6,269,186) further teaches using the average of a region as the threshold for binarization. [See Fig. 1, ref. 104; Fig. 2, ref. S202; Figs. 3-5; Col. 4, lines 50-65.] However, neither teaches nor suggests using the largest of the color component variances to select the target component for segmentation purpose. Suzuki et al. (US 6,118,552) does disclose computing, among other image features, a color variance in order to classify a specific image region. [See Fig. 8, ref. 38; Col. 10, lines 2-13.] However, there is neither teaching nor any suggestions to use color variance to choose the target component, nor is it obvious to one of ordinary skill in the art do so. In addition, Ishikawa et al. (US 5,926,292) discloses a method for selecting representative colors for a block of image. [See Fig. 11, ref. 307; Fig. 13, refs. 332-334; Fig. 14; Col. 13, lines 36-42, 55-61; Col. 14, lines 7-32.] However, it does not teach/suggest that blocks where representative colors are extracted are obtained using a target color component selected by comparing component color variances.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact Information

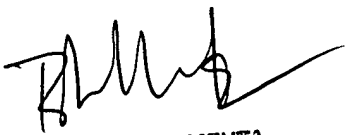
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yubin Hung whose telephone number is (703) 305-1896. The examiner can normally be reached on 7:30 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on (703) 308-5246. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2625

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Yubin Hung
Patent Examiner
March 4, 2005



BHAVESH M. MENTA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600